Celebrating Remnants 2024 Calendar
The above photo of Sioux City, Iowa, from 1866 shows a snapshot of what Iowa previously was. Rolling hills of leadplant once overlooked the developing town. Now Sioux City is home to over 85,000 residents (United States Census Bureau, 2022).

This story is not a unique one in Iowa. Prior to colonization, 80% of the state’s landscape was covered in brilliant prairies supporting abundant and diverse wildlife. European pioneers plowed much of the prairie during settlement. Now, only 0.1% of those prairies remain in Iowa as remnants, broken up across the state. Tallgrass prairies are now one of the most endangered ecosystems in the world.


Above Photo Courtesy of Bill Witt
Sioux City, IA
Circa. 1866
Although often small and difficult to identify, roadside remnants are marked by plant species that are rarely included in planted seed mixes, such as false boneset (*Brickellia eupatorioideae*), whose fluffy seeds and starry seed heads are most visible in fall and winter.

According to some research, living snow fences can increase driver visibility and reduce road maintenance costs while creating wildlife habitat. Proper snow fence design must be carefully considered. There is some concern that roadside plantings and remnants invade farmers' fields. However, due to the soil disturbance and herbicide use associated with farming, most prairie plants do not encroach into crop fields.

*Living snow fences.* (n.d.). University of Minnesota Extension.

Above Photo by Laura Walter
Eastern pasque flower (*Pulsatilla patens*) is one of the earliest flowering plants found in remnant prairies. Their buds are distinctive, with fuzzy trichomes covering the sepals as they first push through the soil and often the frost and snow.

“For us of the minority, the opportunity to see geese is more important than television, and the chance to find a pasque-flower is as inalienable as free speech.” -- Aldo Leopold in the forward to *A Sand County Almanac*.

A common early-spring activity for nature enthusiasts of all levels is to go on a hike in search of the first pasque flowers of the season. Gather a group and join in on the fun this year!

### PRAYER OF THE WEEK

**Our Father**
God of life and of love,

We come to you in prayer,

For our friends and our foes,

For our families and our communities,

For our world and our universe,

For our hearts and our minds.

To give us strength and courage,

And to guide us in our paths,

We trust in your loving presence,

And we ask for your blessings,

Amen.
### CEMETERY PRAIRIES

Remnant prairies come in a variety of forms, and most depend on how the land has been used and managed since colonization. Many remnants are likely to be found along railways, on private properties, or in roadsides, wetlands, grazing meadows, and cemeteries.

Why these sites were chosen for cemeteries is subject to debate, and some, including Glenn Pollock, believe that there is a correlation with the array of beautiful flowers provided by the prairies.

"Those aren't weeds," said Pollock. "They're an important part of Iowa's history, and Iowa's future too." Join Pollock and others in the annual Loess Hills Prairie Seminar to learn more.


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**Above Photo by Laura Walter**

(Above) Rochester Cemetery Prairie

(Left) Bennington Township Cemetery Prairie
Roadsides serve as habitat for pollinators and a migration corridor for monarchs. Roadside seed mixes often include the butterfly milkweed (Asclepias tuberosa, shown above). Milkweed species are used by monarchs as egg-laying habitat and forage for caterpillars. Adult monarchs use many wildflower species, including milkweed, as a nectar source.

Roadside plantings connect fragments of habitat across Iowa, offering a corridor for the annual monarch migration. The Interstate-35 corridor was symbolically renamed the “Monarch Highway” to bring attention to these benefits. Though a relatively small number of monarchs are killed by vehicle collisions, research shows that there is a net positive effect on the populations.

# REMNANT DIVERSITY

Remnant tallgrass prairies host more plant diversity than restorations. We can increase diversity in roadside restorations by studying remnant plant communities and producing seed that preserves genetics from Iowa remnant populations.

Species like Michigan lily (*Lilium michiganense*, shown above) are found in many remnants, including in roadsides. However, there are more rare species, like the silky prairie clover (*Dalea villosa*, shown on lower right) that are found in six known locations. It is important that we protect and study these remnants to learn how to support rare populations of plants, insects, and animals.

REMNANT ADVOCATES
With only a fraction of our original prairies left in Iowa, the threat of losing this unique and diverse habitat is constant. Remnants are especially susceptible to encroachment by woody and invasive species, pollution, and habitat degradation. Prairies need our help, and through the work of dedicated champions we can preserve these important ecosystems.

Green Iowa AmeriCorps members (above) removed over three truckloads of invasive sweet clover from Bennington Township Cemetery Prairie in the summer of 2022. Pam Wolter (left) has been essential in gathering the community of Dunkerton to maintain its remnant railroad prairie. Since 2021, Pam has organized a volunteer workday to remove woody vegetation from the site.

Above Photo by Laura Walter
Bennington Township Cemetery Prairie
RARE HABITAT

Even more rare than tallgrass prairies are wetland prairies. Species like the bottle gentian (*Gentiana andrewsii*, shown above) are often found in Iowa wetlands like fens.

From 2022 to 2023, UNI student and former AmeriCorps member Laura Spies (shown in the lower right) collected and researched how to consistently and efficiently germinate bottle gentian.

Through work like this, more species may become available to commercial native seed growers, and therefore more abundant across Iowa. Once available to the native growers, the Iowa Roadside Program can incorporate these species into their seed mixes, making these species more abundant across the state.


Above Photo by Bill Witt
Rowley Fen

Photo by Laura Walter
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**RECREATING IN REMNANTS**

Areas like the Loess Hills (shown above), Neal Smith Wildlife Refuge, and Doolittle State Prairie Preserve are all public spaces that house remnants that may be visited. When visiting a remnant do not hesitate to explore it in its entirety. Wear good boots and high socks to ensure that you can explore directly in the grasses and fully experience all of the small factors that make remnants what they are.

When recreating in these spaces visitors are encouraged to take photos and share sightings of plant and insect species to citizen science databases like iNaturalist and BugGuide.net, but remember to respect the space. For tips on how to recreate responsibly, see the tear-out sheet on the back of this calendar.

*Above Photo by Lance Brisbois Loess Hills*
REMNANT SEED

Seeds of native plants support a variety of native insect and other animal species, like the American tree sparrow (Spizelloides arborea, shown above). Native seed is also essential for expanding habitat by establishing new plant communities.

The Plant Materials Program at the Tallgrass Prairie Center gets permission to collect seed of selected plant species from remnants in roadsides, preserves, and private properties. These small samples are grown in plots on the UNI campus, and seed harvested from them is dispersed to native seed growers. Seed collected in Iowa is organized by zone and labeled as “source identified.” Only seed with a yellow tag is certified to originate from Iowa prairies.


Above Photo by Laura Walter
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**WILDLIFE HABITAT**

Roadsides offer great nesting and brooding habitat for ground-nesting birds, like ring-necked pheasants (*Phasianus colchicus*). Intensification of agriculture and urban sprawl across Iowa and the Midwest has degraded much of their nesting habitat.

Pheasants prefer the cover offered by grasslands to conceal themselves and their nests. These birds seek warm and dry areas to keep newly-hatched chicks out of grasses with heavy dew. Roadsides offer both and therefore make good habitat until it comes time to mow and hay. To protect ground-nesting birds, Iowa’s mowing law (Iowa code 314.17) prohibits mowing roadsides until July 15, with some exceptions related to safety, accessibility, and noxious weed control.

Pheasants Forever. 2016. Roadsides: Ecological Traps or Opportunities to Provide Habitat.

Photos by Ben Neff
County Involvement with Native Roadside Vegetation

Counties with IRVM Plans
- Cedar Falls, Center Point, Cherokee,
  Davenport, Iowa City, Moline,
  Denver, Gilmore, Kuemper, Manning,
  Durant, Ringgold, Van Buren

Cities with IRVM Plans
- Waterloo, Pleasant Hill, Denver, Ames, Cedar Falls, Fayette, Madrid, Marion, Tripoli

Roadside Vegetation Manager

NUMBER = # of years receiving FHWA native seed mixes

Remnant Prairies are Essential for Our Ecosystem

Remnants are the foundation to all prairie found in Iowa. Plantings sourced from these remnants are essential in supporting native flora and fauna that make Iowa the unique and beautiful place that many of us call home.

Help Promote Iowa’s Remnants

Remnants provide more benefits for the environment than turfgrass that is often found in roadsides. Use this calendar to find and visit one of the many remnants across the state. Make sure to take plenty of photos and share any sightings of plants and animals with a variety of citizen science databases available.

The Iowa Living Roadway Trust Fund (LRTF) was established by the Iowa Legislature in 1989 and is administered by the Iowa DOT. For over 30 years, LRTF and its partners have helped Iowa counties and communities manage roadside and trail plantings in a cost-effective way that provides habitat for pollinators and improves water quality. A special thanks goes to LRTF for sponsoring this calendar.

www.iowadot.gov/lrtf

The Tallgrass Prairie Center (TPC), a department within the University of Northern Iowa, empowers people to value and restore resilient, diverse tallgrass prairie.

www.tallgrassprairiecenter.org

Green Iowa AmeriCorps (GIA) works to empower Iowa's communities and school districts to make more environmental, conservation-minded decisions and improvements by engaging its members in direct service work, environmental education, and volunteer engagement. These skills and tools are applied in conjunction with the Iowa Roadside Management Program and Department of Natural Resources to help educate and maintain thriving roadsides and trails.

www.greeniowaamericorps.org
Save this handy guide for how and where to respectfully explore Iowa’s remnant prairies.

**Prairie Remnants Across Iowa**

Notable Locations to Visit

- **Anderson Prairie State Preserve**
  1440 360th Ave., Estherville, IA

- **Beaver Township Cemetery Prairie**
  Dixie, IA

- **Bennington Cemetery Prairie**
  3940 N EK Run Rd., Waterloo, IA

- **Blackmun Prairie**
  Ackley, IA

- **Broken Kettle Grasslands**
  Westfield, IA

- **Cedar Hills Sand Prairie State Preserve**
  N Butler Rd., Cedar Falls, IA

- **Chichaqua Bottoms Greenbelt**
  8700 NE 126th Ave., Maxwell, IA

- **Clay Prairie State Preserve**
  Country Rd. C45, Allison, IA

- **Dinesen Prairie State Preserve**
  Country Rd. M38, Kirksman, IA

- **Doolittle Prairie State Preserve**
  18249 560th Ave., Story City, IA

- **East Hubbard Prairie**
  18930 IA-175, Hubbard, IA

- **Engeldinger Marsh**
  11961 NE 118th Ave., Maxwell, IA

- **Five Ridge Prairie State Preserve**
  15501 200th St., Westfield, IA

- **Folsom Point Prairie**
  50565 Braddock Ave., Council Bluffs, IA

- **Gitchie Manitou Prairie State Preserve**
  52114, Adams Ave., Larchwood, IA

- **Hoffman Prairie State Preserve**
  US-18, Ventura, IA

- **Kalsow Prairie State Preserve**
  27989 630th St., Manson, IA

- **Kis-Ke-Kosh Prairie State Preserve**
  Knapp Ave., Marshalltown, IA

- **Melrose Cemetery Prairie**
  Prairie City, IA

- **Mount Talbot Prairie State Preserve**
  Sioux City, IA

- **Neal Smith National Wildlife Refuge**
  9981 Pacific St., Prairie City, IA

- **Rolling Thunder Prairie State Preserve**
  15565 118th Ave., Indianola, IA

- **Sheeder Prairie State Preserve**
  226th St, Gutture Center, IA

- **Sioux City Prairie Preserve**
  Sioux City, IA

- **Turin Loess Hills State Preserve**
  Montona, IA

- **Walch Prairie**
  10811 90th St., Swaledale, IA

- **Waverly Cemetery Prairie**
  250th St., Waverly, IA

- **Wolters Prairie**
  19155 Quail Ave., Clarion, IA

**Additional Resources**

- Iowa Prairie Network
- Iowa Prairie Plants (Illustrated Guide)

*Dark grey shows all Conservation and Recreation Land in Iowa (DNR)*
Respectfully Exploring Iowa’s Remnants

Asking Permission
You may know of a remnant prairie that you are interested in exploring, but be sure to reach out to property owners, especially on private property, first.

NEVER Take Whole Plants
Remnant prairies are rare ecosystems that need to be preserved. Do not dig up entire plants; this removes the individual from the population and thins the gene pool.

Pay Attention
Remnant prairies were often left alone due to wet and rocky terrain. Additionally, many burrowing animals reside in prairies. Keep an eye out for wet conditions and dens that you may fall into.

Seed Collection
Seed collection is a time-honored tradition, and it is common for different organizations and individuals to collect seed. Be sure to ask permission and leave 80% of the seeds on the plant to ensure proper reseeding in the following year.

Clean Your Shoes
Just like you clean your boat when you get out of the water, you must clean your shoes. You do not want to track any non-natives from this prairie into another, or vice versa. Let’s keep our prairies safe!

Be Prepared
Remnant exploration is a hike! Bring plenty of water, snacks, and sunscreen. Be sure to wear a hat, sturdy shoes, long pants, and long sleeves whenever possible.